

# Mineral Industry Surveys

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## TIN IN APRIL 2003

Domestic consumption of primary tin in April was estimated by the U.S. Geological Survey to be 1% higher than that in March and 5% higher than that in April 2002.

The Platts Metals Week average composite price for tin in April was \$3.22 per pound, slightly lower than that in March and 11% higher than that in April 2002.

Weirton Steel Corp., Weirton, WV, filed for Chapter 11 bankruptcy protection after three years of effort to avoid such a filing. Weirton ranks as the sixth largest integrated steel producer in the United States and also is a major producer of tinplate. The bankruptcy became inevitable in recent weeks, as Weirton's cost-cutting measures had not been enough to offset rising legacy costs and a weak steel market. Strategic alternatives, including the acquisition of other tin mill operations also were eliminated in recent weeks, partly by merger activity among other major steel producers. Weirton plans to remain operating while in bankruptcy status (American Metal Market, 2003b).

At a tin technology meeting in Kuala Lumpur, Malaysia, officials of CRU International predicted that the global tin market, which was balanced in 2002, was expected to move into deficit in 2003 and remain so in 2004. The officials stated that world tin consumption would exceed production by about 12,000 metric tons (t) in 2003 (Metal-Pages, 2003<sup>1</sup>).

International Steel Group Inc. (ISG) completed its purchase of Bethlehem Steel Corp. assets, making the new company a 16-million-metric-ton-per-year (Mt/yr) integrated producer with several new product lines. The acquisition added plate, rail, and tinplate to ISG's product line. Bethlehem ranked as a major steel producer and was an important tinplate producer at its Sparrows Point, MD, facility (American Metal Market, 2003a).

Arcelor Packaging International (API) announced plans to reduce its number of tinplate production sites to two or three by 2010. API is a subsidiary of Arcelor Group (Luxemburg), the world's largest steel producer, formed by earlier mergers involving Usinor and Cockerill-Sambre SA. Presently, API has a tinplate capacity of 2.1 Mt/yr and an output of 1.85 Mt/yr. Its

production encompasses 10 electrolytic tinning lines at 6 sites. In France, API has sites at Basse-Indre near Nantes, Mardyck near Dunkirk, and at Florange. In Belgium, it has a tin mill at Liege. In Spain, it has tin mills at Ariles and Etxebarri. Currently, the tinplate market share in Western Europe is 40% for API, 20% for Corus (England-Netherlands), 20% for Rasselstein Hoesch GmbH (Germany), and 10% for Riva Acciaio SpA (Italy) (Metal Bulletin, 2003a).

Yunnan Tin Corp. (YTC), China's largest tin producer, announced that it plans to produce 24,000 t of refined tin at its Gejiu city tin smelter in 2003. YTC also has the capacity to produce another 3,000 t yearly from its newly acquired smelter in southern Hunan Province, Chenzhou Mineral Resource Investment Co. (Metal Bulletin, 2003d).

In Australia, Murchison United NL announced that over the past year it had reduced production costs at its Renison Bell tin mine in Tasmania to \$4,252 per metric ton. Renison Bell has the capacity to produce 10,000 t annually of tin-in-concentrate and ships all its concentrates to the Thaisarco tin smelter in Phuket, Thailand (Metal Bulletin, 2003c).

In Germany, major tinplate producer Rasselstein has argued forcefully against the ? 25-cent deposit imposed last January on recyclable drink containers made of glass, tinplate and plastic; the deposit would go from the consumer to the can and beverage producers. The company believes that an inadequate returns system is alienating consumers from the tinplated containers. Rasselstein has the capacity to produce 1 million metric tons of tinplate at its tin mill in Andernach and has about 2,300 employees (Metal Bulletin, 2003b).

### Update

On May 30, 2003, the Platts Metals Week composite price for tin was \$3.34 per pound.

### References Cited

- American Metal Market, 2003a, ISG purchase of Bethlehem signed, sealed and delivered: American Metal Market, v. 111, no. 19-1, May 12, p. 1, 2.  
American Metal Market, 2003b, Weirton files for Chapter 11 bankruptcy protection: American Metal Market, v.111, no. 10-2, May 20, p. 2.

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<sup>1</sup>A reference with a section mark (§) is found in the Internet Reference Cited section.

Metal Bulletin, 2003a, Arcelor to cut tinplate sites to three: Metal Bulletin, no. 8772, May 12, p. 14.  
Metal Bulletin, 2003b, Rasselstein berates Berlin over can deposit scheme: Metal Bulletin, no. 8770, May 5, p. 18.  
Metal Bulletin, 2003c, Renison Bell restarts tin mining: Metal Bulletin, no. 8773, May 15, p. 4.

Metal Bulletin, 2003d, Yunnan Tin prepares for 20-day shutdown: Metal Bulletin, no. 8773, May 15, p. 5.

### **Internet Reference Cited**

Metal-Pages, 2003 (June 2), Tin deficit predicted, accessed June 6, 2003, at URL <http://www.metal-pages.com>.

TABLE 1  
SALIENT TIN STATISTICS<sup>1</sup>

(Metric tons, unless otherwise noted)

	2003			
	2002 <sup>p</sup>	March	April	January- April
Production, secondary <sup>e, 2</sup>	10,800	900	900	3,600
Consumption:				
Primary	35,800	3,140 <sup>r</sup>	3,180	12,600
Secondary	10,800	711 <sup>r</sup>	711	2,760
Imports for consumption, metal	42,200	4,060	NA	NA
Exports, metal	2,940	196	NA	NA
Stocks at end of period	7,280	6,640 <sup>r</sup>	6,420	XX
Prices (average cents per pound): <sup>3</sup>				
Metals Week composite <sup>4</sup>	291.97	323.84	321.84	XX
Metals Week New York dealer	194.75	218.50	217.19	XX
London, standard grade, cash	184.00	208.00	207.00	XX
Kuala Lumpur	184.35	209.76	207.78	XX

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices.

<sup>2</sup>Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

<sup>3</sup>Source: Platts Metals Week.

<sup>4</sup>The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

TABLE 2  
METALS WEEK COMPOSITE PRICE<sup>1</sup>

(Cents per pound)

Period	High	Low	Average
2002:			
April	291.33	283.90	288.55
May	299.15	290.78	296.72
June	311.49	299.48	304.92
July	316.83	290.53	308.64
August	286.95	272.37	279.74
September	295.72	277.95	286.19
October	308.99	294.63	302.39
November	306.01	297.88	301.54
December	306.94	298.78	302.37
Year	316.83	267.12	291.97
2003:			
January	320.43	303.14	313.84
February	333.87	310.69	322.82
March	330.75	318.70	323.84
April	326.53	317.74	321.54

<sup>1</sup>The Metals Week composite price is a calculated formula, not a market price that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

Source: Platts Metals Week.

TABLE 3  
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES<sup>1</sup>

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments <sup>2</sup>
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2002 <sup>p</sup>	61,100	2,400,000	7,440	3.1	2,100,000
2003:					
January	2,790	216,000	642	3.0	180,000
February	2,510 <sup>r</sup>	214,000 <sup>r</sup>	640 <sup>r</sup>	3.0	156,000
March	W	225,000 <sup>r</sup>	686 <sup>r</sup>	3.1	156,000
April	W	217,000	700	3.2	NA

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Source: American Iron and Steel Institute monthly publication.

TABLE 4  
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS<sup>1</sup>

(Metric tons)

Country or product	2003			
	2002	February	March	January- March
Imports:				
Metal (unwrought tin):				
Bolivia	6,150	601	641	1,650
Brazil	4,840	150	476	736
China	7,600	279	592	1,470
Indonesia	3,340	--	320	620
Malaysia	122	40	80	160
Peru	19,900	1,430	1,810	4,850
Russia	21	--	--	--
United Kingdom	2	--	--	--
Other	264	44	138	190
Total	42,200	2,540	4,060	9,670
Other (gross weight):				
Alloys	3,530	310	288	856
Bars and rods	224	18	39	83
Foil, tubes, pipes	1	--	1	1
Plates, sheets, strip	128	5	(2)	11
Waste and scrap	561	66	34	500
Miscellaneous	7,810	137	209	533
Total	12,300	536	571	1,980
Exports (metal)	2,940	318	196	754

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5  
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT<sup>1</sup>

(Metric tons of contained tin)

Product	2002 <sup>P</sup>	2003						January- April
		March			April			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) <sup>2</sup>	1,660	149 <sup>r</sup>	W	149 <sup>r</sup>	154	W	154	618
Babbitt	501	29 <sup>r</sup>	W	29 <sup>r</sup>	29	W	29	95
Bar tin and anodes	192	44 <sup>r</sup>	W	44 <sup>r</sup>	17	W	17	94
Bronze and brass	2,390	83 <sup>r</sup>	77	160 <sup>r</sup>	83	78	161	649
Chemicals	7,550	697	W	697	697	W	697	2,790
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	14,500	767 <sup>r</sup>	263	1,030 <sup>r</sup>	780	263	1,040	4,270
Tinning	411	37 <sup>r</sup>	--	37 <sup>r</sup>	33	--	33	137
Tinplate <sup>3</sup>	7,440	686 <sup>r</sup>	--	686 <sup>r</sup>	700	--	700	2,650
Tin powder	W	W	--	W	W	--	W	W
White metal <sup>4</sup>	W	W	-- <sup>r</sup>	W	W	--	W	W
Other	1,110	52 <sup>r</sup>	71 <sup>r</sup>	123 <sup>r</sup>	84	70	154	456
Total reported	35,800	2,540 <sup>r</sup>	411 <sup>r</sup>	2,960 <sup>r</sup>	2,580	411	2,990	11,800
Estimated undistributed consumption <sup>5</sup>	10,800	600	300	900	600	300	900	3,600
Grand total	46,600	3,140 <sup>r</sup>	711 <sup>r</sup>	3,860 <sup>r</sup>	3,180	711	3,890	15,400

<sup>P</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing proprietary data; included with "Other." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes terne metal.

<sup>3</sup>Includes secondary pig tin and tin components of tinplating chemical solutions.

<sup>4</sup>Includes pewter, britannia metal, and jewelers' metal.

<sup>5</sup>Estimated consumption of plants reporting on an annual basis.